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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/652,291 | 08/31/2000 | Gaurav Sharma | XER 2 0330 D/99421 | 4239 |

7590 - 01/25/2007
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| EXAMINER |
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LU, TOM Y

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| ART UNIT | PAPER NUMBER |
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2624

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 01/25/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 09/652,291 | | SHARMA ET AL. | |
| | Examiner | | Art Unit | |
| | Tom Y. Lu | | 2624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-8, 12 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-8, 12 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment and written response filed on 12/29/2006 has been entered and considered.
2. Claims 1-5, 9-11, 13-16 and 18 have been cancelled.
3. Claims 6, 12 and 17 have been amended.
4. Claims 6-8, 12 and 17 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 6-8, 12 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claim 6, applicant calls for an opaque paper document, which is not disclosed in the specification.

Claims 7-8 are rejected as being dependent upon claim 6.

Claims 12 and 17 are rejected for the same reason given in claim 6 above.

6. Claims 6-8, 12 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As per claim 6, applicant calls for a method of generating a *show-through* pattern on a duplex-printed document through selective disposition of halftone patterns on opposite sides of an *opaque* document. Applicant explained in the response filed on 12/29/2006, "when the paper is viewed against the dark background, the paper is opaque." The examiner notes such explanation of opaque is inadequate and misleading since the definition of opaque according to Merriam-Webster's Collegiate Dictionary, is "blocking the passage of radiant energy and esp. light." (A copy of the dictionary attached herein.) If applicant's explanation were in fact true, then even a piece of white paper could be labeled as opaque because when it is viewed against the dark background, the printed material on the reverse side is also not visible. Consequently, the enablement of generating a show-through pattern on an opaque document is questionable because there should be no show-through when the document is opaque.

Claims 7-8 are rejected as being dependent upon claim 6.

Claims 12 and 17 are rejected for the same reason given in claim 6 above.

Response to Arguments

7. Applicant's arguments filed 12/29/2006 have been fully considered but they are not persuasive.

As per claim 6, In response to applicant's argument that '447 and '772 patents are not combinable, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App.

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& Inter. 1985). Additionally, applicant argues the combination of '447 and '772 patents fails to teach the concept of producing through a local phase frequency or angle shift upon using show-through illumination of two different images. The examiner notes argument of "show-through" on an opaque document has been addressed above, therefore, there is no need for repetition herein. The examiner further notes the argument of "two different images" was not claimed in claim 6. Although claim 6 calls for first image and second image for both sides of a document, it does not preclude the possibility that two images are the same as taught in '447 patent. Consequently, the rejection of claim 6 stands.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tavernier et al (U.S. Patent No. 5,824,447) in view of Muir (U.S. Patent No. 5,202,772).

a. As per Claim 6, with regard to preamble, please see paragraphs 5 and 6 above.

Tavernier discloses printing a first image on a first side of the document in a first halftone pattern; and printing a second image on a second side of the document in a second halftone pattern (Tavernier at column 5, lines 40-60, teaches printing halftone images on the both side of a translucent substrate) present first and second images upon front-lit illumination respectively (natural paper characteristics, see explanation in paragraph 3 above), and wherein the first and

second patterns are disposed to form a recognizable marking distinct (Tavernier at column 9, lines 25-26, teaches the halftone images on the both sides of the transparent substrate are screened at a different angle to create a visible moiré pattern, such moiré pattern corresponds the security feature Tavernier describes at column 5, lines 42-43, as a watermark) from the first and second images upon illumination from a show-through light source (Note the halftone images are printed on a transparent substrate. Therefore, in order to view the resulted moiré pattern a show-through light source is inherently required). However, Tavernier does not explicitly teach such angle shifting would have a frequency shift effect, which Muir discloses at column 3, lines 13-17. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to know a recognizable marking, such as a moiré pattern, is produced through a local frequency shift of the printed halftone dot. One of ordinary skill in the art would have been motivated to do this because angle shifting alters the visibility of the moiré pattern by shifting the beat patterns from low frequency to high frequency as taught by Muir at column 3, lines 13-17. Please note the moiré pattern as taught by Muir is screened a different angle just like Tavernier, the statement of "this pattern is discernable by the human eye" is true only when the human eye is horizontally or vertically perceiving the pattern (Muir: column 3, lines 2-5). However, when the moiré pattern is perceived from side angles, the moiré pattern becomes perceivable.

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- b. As per Claim 7, Tavernier teaches one of the halftone images is screened at different angle. By implying Muir's frequency shifting technique, such image is frequency shifted.
- c. As per Claim 8, Tavernier at column 9, line 26, teaches the recognizable marking is a moiré pattern.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y. Lu whose telephone number is (571) 272-7393. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571)-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TYL



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